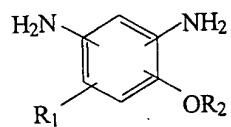


CLAIMS

What is claimed is:

1. An aromatic diamine derivative of formula (I):

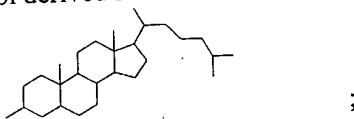


(I)

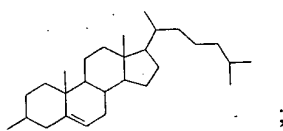
wherein,

R₁ is H or C₁-C₅ alkyl; and

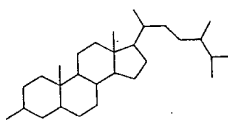
R₂ is a cholesterol derived radical selected from the group consisting of:



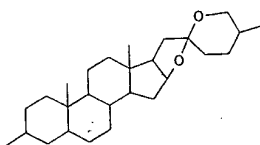
;



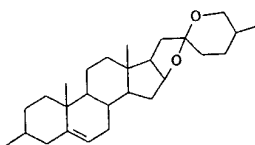
;



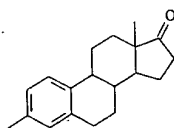
;



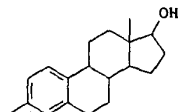
;



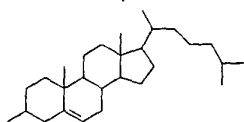
;



; and

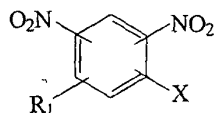


2. The diamine derivative of claim 1 wherein R_1 is H or methyl and R_2 is



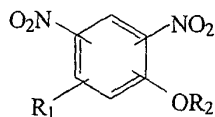
3. The diamine derivative of claim 1 which is 4-[(17-(1,5-dimethylhexyl)-10,13-dimethyl-2,3,4,7,8,9,10,11,12,13,14,15,16,17-tetradecahydro-1*H*-cyclopenta[*a*]phenanthren-3-yl)-oxy]-1,3-benzenediamine.
4. A method for preparing the compound of formula (I) of claim 1, the method comprising:

- (a) reacting a dinitrobenzene compound of formula (II)



(II)

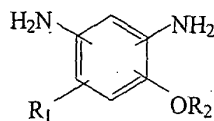
with a cholesterol compound HOR_2 in the presence of a base and an inorganic solvent to obtain a compound of formula (III);



(III)

and

- (b) hydrogenating the compound of formula (III) to obtain the compound of formula (I)



(I)

wherein R₁ and R₂ are as defined in claim 1, and X is F, Cl, or Br.

5. The method of claim 4 wherein the base is selected from the group consisting of the carbonates of IA and IIA metals, trimethylamine, triethylamine, and diisopropylethylamine.
6. The method of claim 4 wherein the organic solvent is selected from dichloroethane, methane dichloride, chloroform, acetone, butanone, N-methylpyrrolidone (NMP), N,N-dimethylacetamide (DMAC), and N,N-dimethylformamide (DMF).
7. A polyimide resin for use in a liquid crystal display cell as an alignment film material, the polyimide resin being obtained by a polymerization reaction of a tetracarboxylic acid or a dianhydride derivative thereof with a diamine, wherein the diamine comprises at least 5 mol% of one or more of the diamine derivatives of formula (I) of claim 1.
8. The polyimide resin of claim 7 wherein the diamine comprises at least 20 mol% of one or more of the diamine derivatives of formula (I) of claim 1.
9. The polyimide resin of claim 7 wherein the diamine comprises 4-[(17-(1,5-dimethylhexyl)-10,13-dimethyl-2,3,4,7,8,9,10,11,12,13,14,15,16,17-tetradecahydro-1H-cyclopenta[a]phenanthren-3-yl)-oxy]-1,3-benzenediamine.